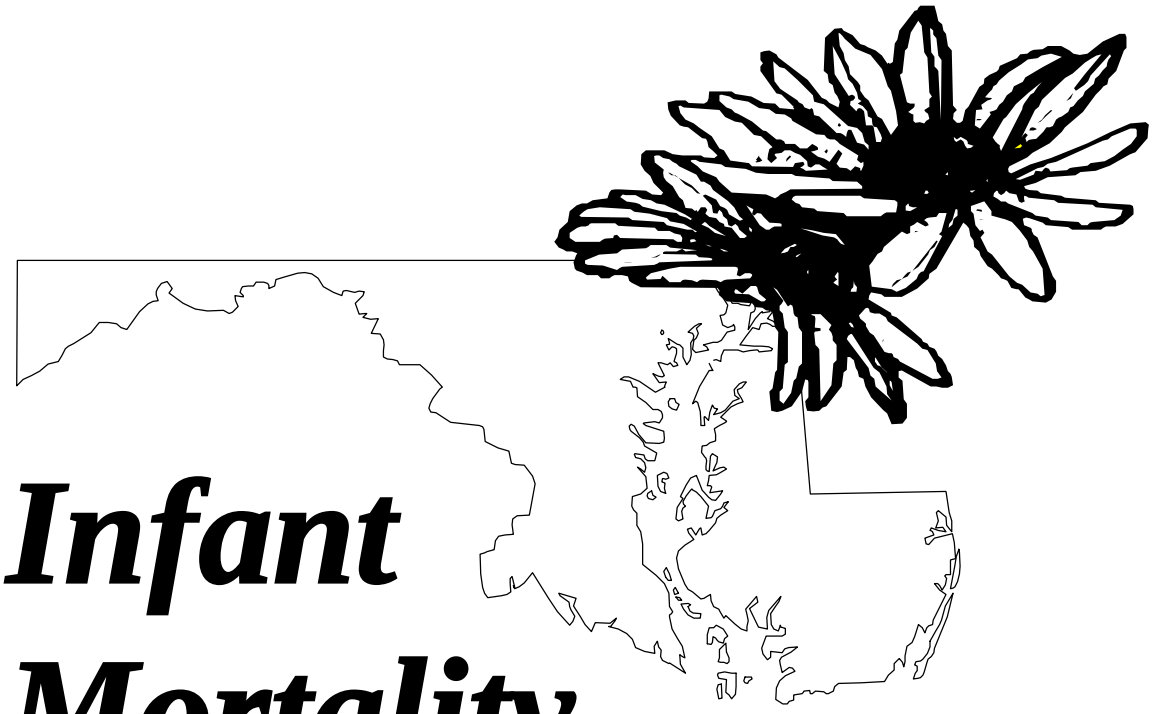

Infant Mortality in Maryland 2000

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Infant Mortality in Maryland--2000

Summary:

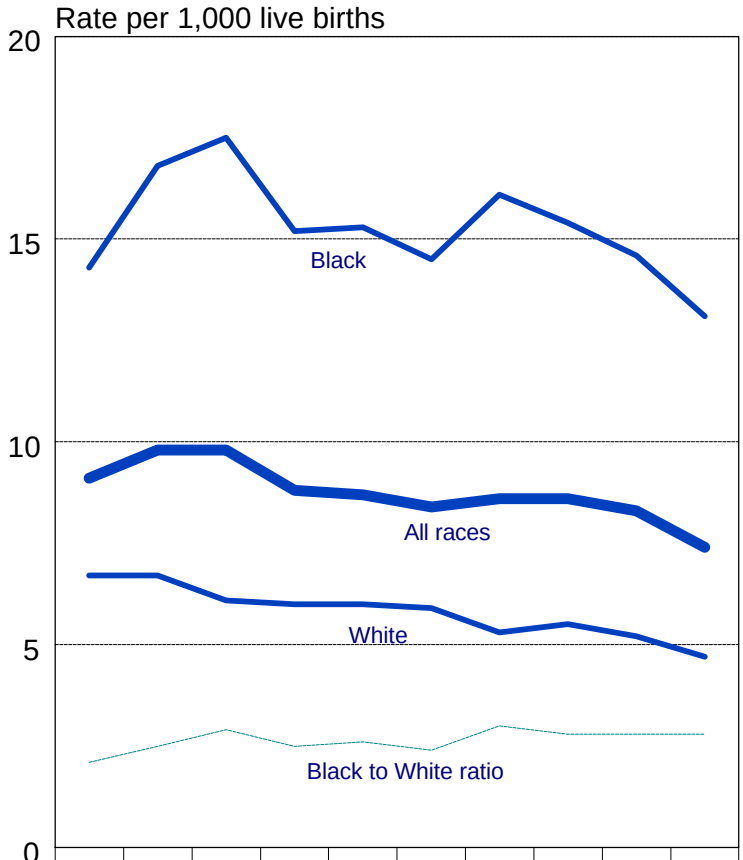
Maryland's infant mortality rate fell to a record low of 7.4 deaths per 1,000 live births in 2000, an 11 percent decline from the previous low of 8.3 set in 1999. Reductions occurred for six of the ten leading causes of infant death, with the main decline occurring among infants between the ages of 28 days and one year of life. Although mortality rates for both white and black infants declined between 1999 and 2000, the mortality rate for black Maryland infants remains nearly three times higher than the rate for white infants.

Trends:

The infant mortality rate in Maryland fell to a record low of 7.4 deaths per 1,000 live births in 2000, 10.7 percent lower than the previous low of 8.3 set in 1999 (Figure A and Table 1). A total of 550 infants died in 2000, 46 fewer than in 1999.

Mortality rates declined among both white and black infants between 1999 and 2000. The white infant mortality rate fell from 5.1 to 4.7, a 7.7 percent decline. The black infant mortality rate fell from 14.7 to 13.1, a 10.3 percent decline (Table 1). Despite these improvements, the 2000 infant mortality rate for black infants was 2.8 times higher than the rate for white infants, identical to the ratio for the preceding two years (Figure A). This ratio has increased since the early 1990s because the decline in infant mortality

Figure A. Infant Mortality Rates by Race and Black to White Ratio, Maryland, 1991-2000.



	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
All races	9.1	9.8	9.8	8.8	8.7	8.4	8.6	8.6	8.3	7.4
White	6.7	6.7	6.1	6	6	5.9	5.3	5.5	5.2	4.7
Black	14.3	16.8	17.5	15.2	15.3	14.5	16.1	15.4	14.6	13.1
Ratio	2.1	2.5	2.9	2.5	2.6	2.4	3	2.8	2.8	2.8

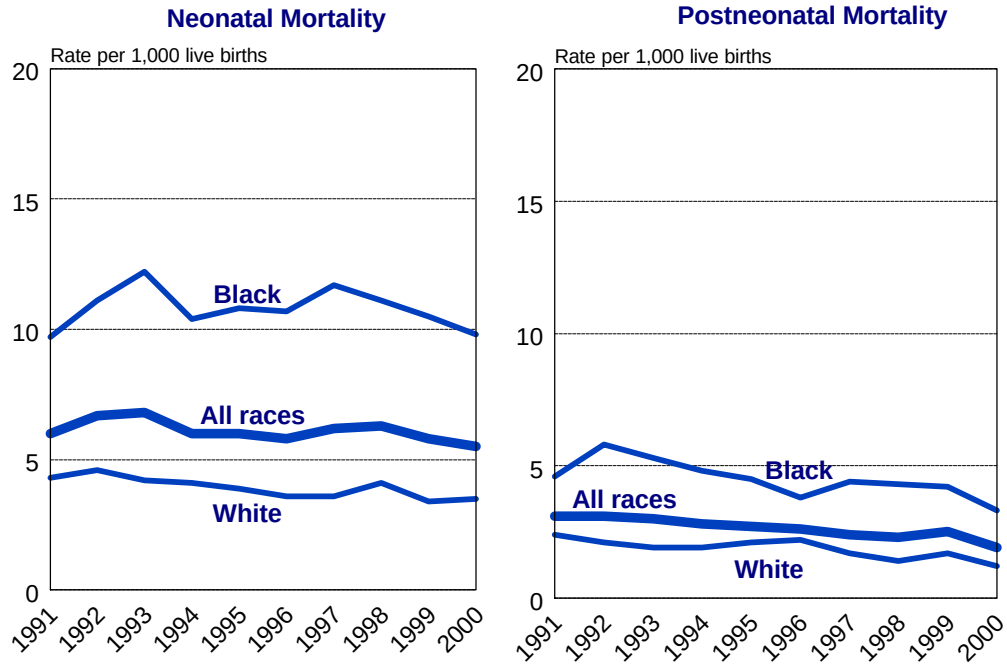
rates in the past decade has been more rapid for white infants than for black infants. The white infant mortality rate fell by 16.0 percent between the years 1991-1995 and 1996-2000, while the rate for blacks fell by only 6.9 percent (Table 2). Despite these differences in the rates of decline, both declines were statistically significant.

Time of death:

The neonatal mortality rate (deaths to infants under 28 days of age per 1,000 live births) was 5.5 in 2000, 5.6 percent lower than the 1999 rate of 5.8 (Table 1). While the black neonatal mortality rate fell by 6.3 percent, from 10.5 in 1999 to 9.8 in 2000, the rate increased slightly for white infants, from 3.4 in 1999 to 3.5 in 2000 (Figure B). Despite these changes from 1999 to 2000, neonatal mortality rates have declined significantly in the last decade among whites, but not among blacks (Table 2). However, the neonatal mortality rate among blacks has been falling steadily since 1997.

The postneonatal mortality rate (deaths from 28 days through 11 months of age per 1,000 live births) was 1.9 in 1999, a 22.7 percent decline from the 1999 rate of 2.5 (Table 1). The rate fell substantially among both white (1.7 in 1999 compared with 1.2 in 2000) and black (4.2 in 1999 compared with 3.3 in 2000) postneonates. Postneonatal mortality rates have declined significantly among both white and black infants over the past decade (Table 2). Neonatal and postneonatal mortality rates were each 2.8 times higher among black infants than white infants in 2000.

Figure B. Neonatal and Postneonatal Mortality Rates by Race, Maryland, 1991-2000.



Causes of death:

The three leading causes of infant death in 2000 were disorders relating to short gestation and unspecified low birth weight (low birth weight), congenital anomalies and sudden infant death syndrome (SIDS) (Figure C and Table 3). Congenital anomalies, low birth weight and SIDS were the leading causes of death among white infants. The leading causes of death among black infants were low birth weight, maternal complications of pregnancy and congenital anomalies.

Low birth weight was the leading cause of death among infants dying in the neonatal period. SIDS was the leading cause of death in the postneonatal period (Table 3).

Cause-specific mortality rates were higher for black than white infants for all leading causes of death except diseases of the circulatory system (Figure D). Compared with white infants, black infants were eighteen times more likely to die as a result of enterocolitis, six times more likely to die as a result of maternal complications of pregnancy, five times more likely to die as a result of low birth weight and three times more likely to die from bacterial sepsis.

Although no decline was statistically significant, six of the ten leading causes of infant death fell between 1999 and 2000. These causes included low birth weight, congenital anomalies, SIDS, respiratory distress syndrome (RDS), sepsis and diseases of the circulatory system (Table 4).

Deaths resulting from congenital anomalies, SIDS and RDS have all declined significantly in Maryland in the past decade. However, there have been

Figure C. Distribution of Infant Deaths by the Ten Leading Causes, Maryland, 2000.

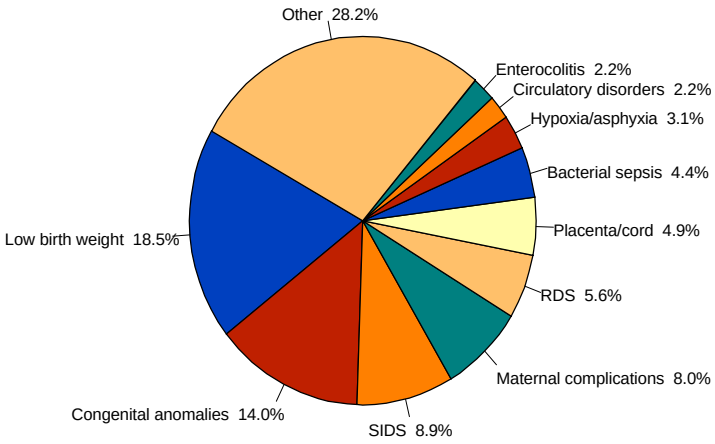
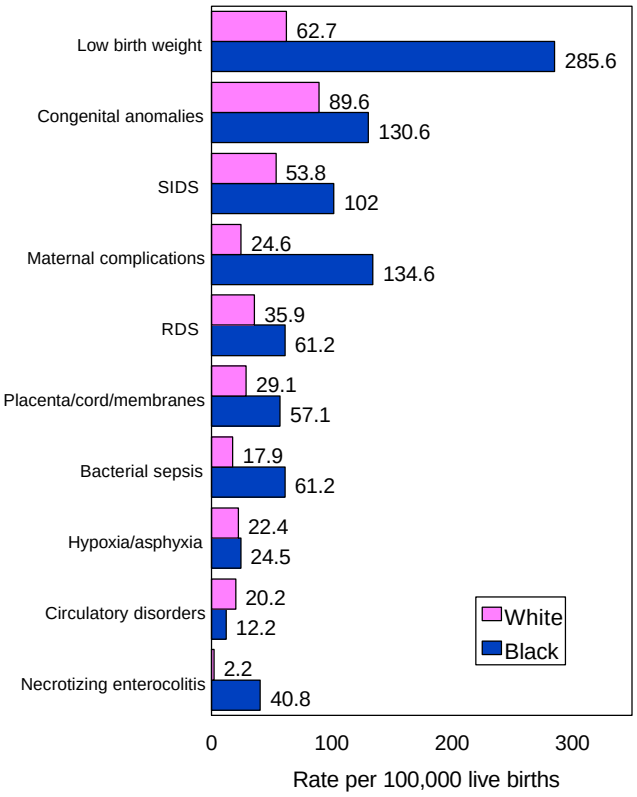


Figure D. Cause-Specific Infant Mortality Rates by Race for the Ten Leading Causes of Death, Maryland, 2000.



significant increases in the number of deaths resulting from maternal complications of pregnancy and complications of the placenta, cord and membranes (Table 5). These two causes of death have increased as a result of a rise in the number of deaths of newborns affected by premature rupture of membranes, and newborns affected by chorioamnionitis.

Regional and county differences:

Infant mortality rates by race, region and political subdivision are shown in Table 6. Infant mortality rates in 2000 ranged from a low of 2.8 per 1,000 live births in Frederick County to a high of 22.1 per 1,000 live births in Caroline County. The white infant mortality rate in Caroline County in 2000 was 9.0 and the black rate was 73.5, the highest race-specific rates in the State for the second year in a row.

In Montgomery County, there were statistically significant declines between 1999 and 2000 in both the overall and black infant mortality rates. The overall rate fell from 7.0 to 4.4, a 37.2 percent decline. The black mortality rate fell from 17.4 to 9.7, a 43.9 percent decline.

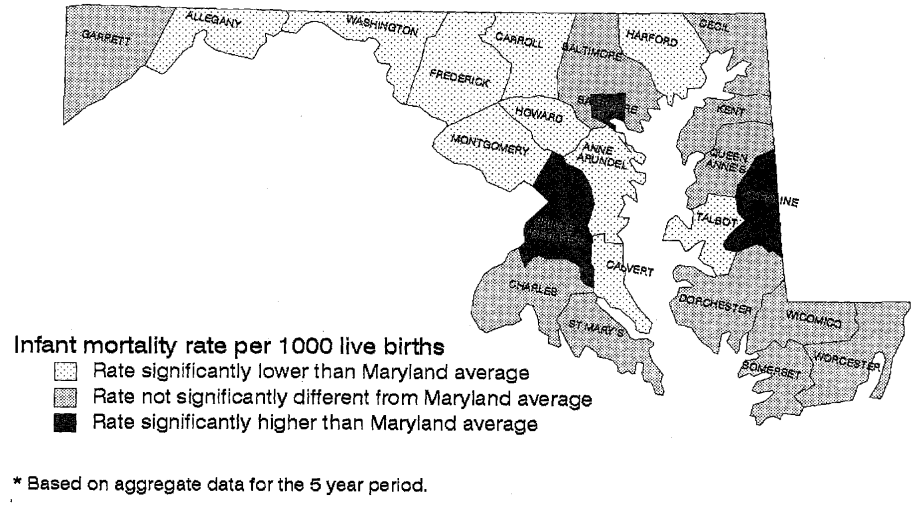
In contrast, the black infant mortality rate in Howard County more than tripled between 1999 and 2000, from a rate of 6.0 to a rate of 21.4. This increase was statistically significant and contributed to a 42 percent increase in Howard County's overall infant mortality rate.

According to aggregate data, Maryland's infant mortality rate declined by 10.8 percent between 1991-1995 and 1996-2000 (Table 7). Infant mortality rates declined significantly between these two periods in Allegany, Washington, Montgomery and Prince George's Counties. The only subdivision of the State where the infant mortality rate increased significantly between these two time periods was Howard County, where the rate increased by 43.9 percent. This increase was the result of a large rise in the number of low birth weight infants born to Howard County residents.

A comparison of county infant mortality rates with the state average for the five-year period 1996-2000 is shown in Figure E. During this period, infant mortality rates were significantly higher than the Maryland average in Prince George's County, Caroline County and Baltimore City. Excluding Baltimore City and Baltimore County, rates were significantly lower than the State average in all counties in the Baltimore metropolitan area as well as in Allegany, Washington, Frederick, Montgomery, Calvert and Talbot Counties.

Neonatal and postneonatal mortality rates by county of residence are shown in Table 8. The neonatal mortality rate was lowest in Frederick County (2.1) and highest in Caroline County (17.2). Caroline County also had the highest postneonatal mortality rate (4.9), although only two postneonatal deaths occurred in that jurisdiction. There were no postneonatal deaths in Garrett, St. Mary's or Talbot Counties in 2000.

Figure E. Comparison of County Infant Mortality Rates With the State Average, Maryland, 1996-2000*.



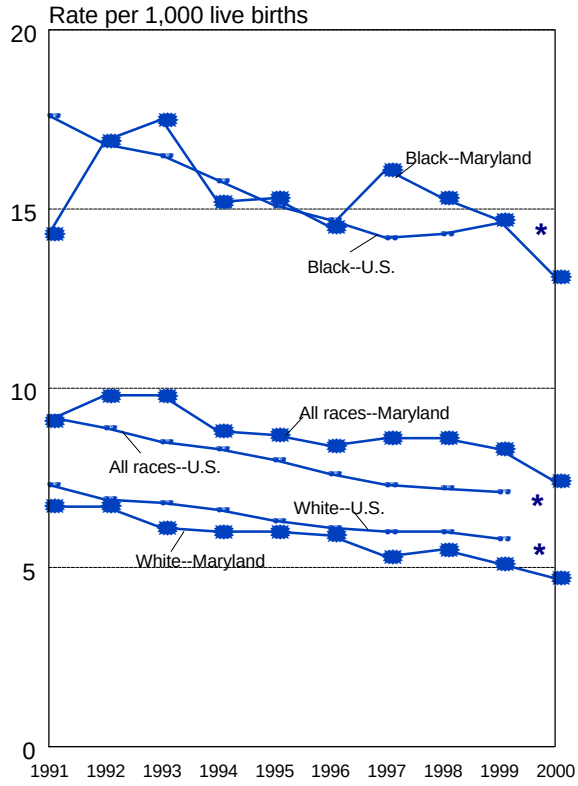
* Based on aggregate data for the 5 year period.

Comparison of rates in Maryland and the United States:

Maryland's overall infant mortality rate has historically been higher than the national rate. In 1999, the most recent year for which national infant mortality rates have been published, the infant mortality rate for the United States was 7.1 per 1,000 live births. Although this rate is lower than the most recent rate in Maryland (7.4 in 2000), both white and black infant mortality rates in Maryland in 2000 were lower than the most recently available national rates. The rate for white Maryland infants was 4.7 in 2000 compared with a national rate of 5.8 in 1999. Among black infants, the Maryland rate in 2000 was 13.1, compared with a U.S. rate of 14.6 in 1999.

The reason that the overall infant mortality rate is higher in Maryland than in the nation, despite the fact that race-specific rates are not, is because the proportion of births to blacks is twice as high in Maryland as in the

Figure F. Infant Mortality Rates by Race, Maryland and the United States, 1991-2000.



* U.S. data for the year 2000 have not been published

U.S., and blacks have much higher infant mortality rates than whites. Consequently, the overall infant mortality rate is substantially higher in Maryland than in the United States even though race-specific rates are not (Figure F).

According to the objectives outlined in Healthy People 2010, infant, neonatal and postneonatal mortality rates should be reduced to rates of 4.5, 2.9 and 1.2 by the year 2010. In order to reach these objectives, the rate of decline of the neonatal mortality rate, which has slowed in Maryland in the past decade compared with earlier years, must increase to an average decline of 4.7 percent per year. In the past decade the average rate of decline has been only 1.3 percent (Figure G).

Figure G. Infant, Neonatal and Postneonatal Mortality Rates, Maryland, 1980-2000 and Healthy People 2010 Goals.

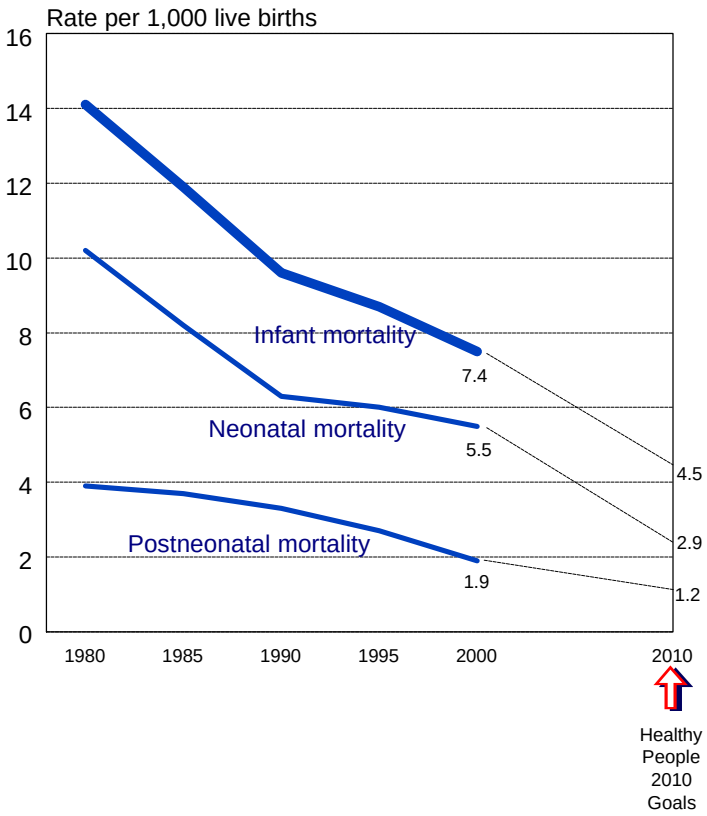


TABLE 1. INFANT, NEONATAL AND POSTNEONATAL MORTALITY RATES AND AND PERCENT CHANGE IN RATES FROM 1999 TO 2000, MARYLAND.

	Number of deaths		Rate		Percent change*
	1999	2000	1999	2000	1999-2000
Infant mortality**					
All races***	596	550	8.3	7.4	-10.7
White	223	211	5.1	4.7	-7.7
Black	349	322	14.7	13.1	-10.3
Neonatal mortality**					
All races***	417	407	5.8	5.5	-5.6
White	150	156	3.4	3.5	1.5
Black	249	240	10.5	9.8	-6.3
Postneonatal mortality**					
All races***	179	143	2.5	1.9	-22.7 ****
White	73	55	1.7	1.2	-26.5
Black	100	82	4.2	3.3	-20.3

*Percent change is based on the exact rates and not the rounded rates presented here

**Per 1,000 live births

***Includes races other than White and Black

****Rates for 1999 and 2000 differ significantly (p<.05)

TABLE 2. INFANT, NEONATAL AND POSTNEONATAL MORTALITY RATES AND PERCENT CHANGE IN RATES FROM 1991-1995 TO 1996-2000, MARYLAND.

	Number of deaths		Rate		Percent change* 1991-1995 to
	1991-1995	1996-2000	1991-1995	1996-2000	1996-2000
Infant mortality*					
All races**	3504	2972	9.3	8.3	-10.8 ****
White	1506	1150	6.3	5.3	-16.0 ****
Black	1922	1730	15.8	14.7	-6.9 ****
Neonatal mortality*					
All races**	2382	2126	6.3	5.9	-6.1 ****
White	1010	793	4.2	3.7	-13.7 ****
Black	1322	1261	10.9	10.7	-1.3
Postneonatal mortality*					
All races**	1122	846	3.0	2.4	-20.7 ****
White	496	357	2.1	1.6	-20.8 ****
Black	600	469	4.9	4.0	-19.1 ****

*Percent change is based on the exact rates and not the rounded rates presented here

**Per 1,000 live births

***Includes races other than White and Black

****Rates for 1991-1995 and 1996-2000 differ significantly (p<.05)

TABLE 3. NUMBER OF DEATHS, MORTALITY RATES AND PERCENTAGE OF DEATHS ATTRIBUTED TO THE TEN LEADING CAUSES OF DEATH BY RACE FOR INFANT, NEONATAL AND POSTNEONATAL DEATHS, MARYLAND, 2000.

		Infant Deaths			*Neonatal Deaths*			*Postneonatal Deaths*		
Rank	**Race and cause of death with 10th revision international list number**	**Number**	**Rate***	**Percent Distribution**	**Number**	**Rate***	**Percent Distribution**	**Number**	**Rate***	**Percent Distribution**
	ALL RACES									
1	Disorders related to short gestation and low birth weight, not elsewhere classified (P07)	102	137.4	18.5	100	134.7	24.6	2	2.7	1.4
2	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	77	103.7	14.0	61	82.2	15.0	16	21.6	11.2
3	Sudden infant death syndrome (R95)	49	66.0	8.9	9	12.1	2.2	40	53.9	28.0
4	Newborn affected by maternal complications of pregnancy (P01)	44	59.3	8.0	42	56.6	10.3	2	2.7	1.4
5	Respiratory distress of newborn (P22)	31	41.8	5.6	27	36.4	6.6	4	5.4	2.8
6	Newborn affected by complications of placenta, cord and membranes (P02)	27	36.4	4.9	27	36.4	6.6	0	0.0	0.0
7	Bacterial sepsis of newborn (P36)	24	32.3	4.4	19	25.6	4.7	5	6.7	3.5
8	Intrauterine hypoxia and birth asphyxia (P20-P21)	17	22.9	3.1	17	22.9	4.2	0	0.0	0.0
9	Diseases of the circulatory system (I00-I99)	12	16.2	2.2	7	9.4	1.7	5	6.7	3.5
9	Necrotizing enterocolitis of newborn (P77)	12	16.2	2.2	8	10.8	2.0	4	5.4	2.8
	All other causes (residual)	155	208.8	28.2	90	121.2	22.1	65	87.6	45.5
All causes		**550**	**741.0**	**100.0**	**407**	**548.3**	**100.0**	**143**	**192.6**	**100.0**
	WHITE									
1	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	40	89.6	19.0	34	76.2	21.8	6	13.4	10.9
2	Disorders related to short gestation and low birth weight, not elsewhere classified (P07)	28	62.7	13.3	28	62.7	17.9	0	0.0	0.0
3	Sudden infant death syndrome (R95)	24	53.8	11.4	4	9.0	2.6	20	44.8	36.4
4	Respiratory distress of newborn (P22)	16	35.9	7.6	14	31.4	9.0	2	4.5	3.6
5	Newborn affected by complications of placenta, cord and membranes (P02)	13	29.1	6.2	13	29.1	8.3	0	0.0	0.0
6	Newborn affected by maternal complications of pregnancy (P01)	11	24.6	5.2	11	24.6	7.1	0	0.0	0.0
6	Intrauterine hypoxia and birth asphyxia (P20-P21)	10	22.4	4.7	10	22.4	6.4	0	0.0	0.0
8	Diseases of the circulatory system (I00-I99)	9	20.2	4.3	5	11.2	3.2	4	9.0	7.3
8	Bacterial sepsis of newborn (P36)	8	17.9	3.8	7	15.7	4.5	1	2.2	1.8
10	Necrotizing enterocolitis of newborn (P77)	1	2.2	0.5	1	2.2	0.6	0	0.0	0.0
	All other causes (residual)	51	114.3	24.2	29	65.0	18.6	22	49.3	40.0
All causes		**211**	**472.8**	**81.0**	**156**	**349.6**	**78.2**	**55**	**123.2**	**89.1**
	BLACK									
1	Disorders related to short gestation and low birth weight, not elsewhere classified (P07)	70	285.6	21.7	68	277.4	28.3	2	8.2	2.4
2	Newborn affected by maternal complications of pregnancy (P01)	33	134.6	10.2	31	126.5	12.9	2	8.2	2.4
3	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	32	130.6	9.9	25	102.0	10.4	7	28.6	8.5
4	Sudden infant death syndrome (R95)	25	102.0	7.8	5	20.4	2.1	20	81.6	24.4
5	Respiratory distress of newborn (P22)	15	61.2	4.7	13	53.0	5.4	2	8.2	2.4
5	Bacterial sepsis of newborn (P36)	15	61.2	4.7	11	44.9	4.6	4	16.3	4.9
6	Newborn affected by complications of placenta, cord and membranes (P02)	14	57.1	4.3	14	57.1	5.8	0	0.0	0.0
7	Necrotizing enterocolitis of newborn (P77)	10	40.8	3.1	6	24.5	2.5	4	16.3	4.9
8	Intrauterine hypoxia and birth asphyxia (P20-P21)	6	24.5	1.9	6	24.5	2.5	0	0.0	0.0
9	Diseases of the circulatory system (I00-I99)	3	12.2	0.9	2	8.2	0.8	1	4.1	1.2
	All other causes (residual)	99	403.9	30.7	59	240.7	24.6	40	163.2	48.8
All causes		**322**	**1313.8**	**100.0**	**240**	**979.2**	**100.0**	**82**	**334.6**	**100.0**

*Per 100,000 live born infants in specified group.

TABLE 4. INFANT MORTALITY RATES IN 1999 AND 2000, AND PERCENT CHANGE IN RATES BETWEEN 1999 AND 2000 BY CAUSE OF DEATH AND RACE, MARYLAND.

2000 rank	Cause of death with 10th revision international list number	Number of deaths		Mortality rate*		Percent change**	
		1999	2000	1999	2000	1999-2000	
	ALL RACES						
1	Disorders related to short gestation and low birth weight, not elsewhere classified (P07)	117	102	162.9	137.4	-15.6	
2	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	79	77	110.0	103.7	-5.7	
3	Sudden infant death syndrome (R95)	56	49	78.0	66.0	-15.3	
4	Newborn affected by maternal complications of pregnancy (P01)	33	44	45.9	59.3	29.0	
5	Respiratory distress of newborn (P22)	31	31	43.2	41.8	-3.2	
6	Newborn affected by complications of placenta, cord and membranes (P02)	26	27	36.2	36.4	0.5	
7	Bacterial sepsis of newborn (P36)	25	24	34.8	32.3	-7.1	
8	Intrauterine hypoxia and birth asphyxia (P20-P21)	12	17	16.7	22.9	37.1	
9	Diseases of the circulatory system (I00-I99)	18	12	25.1	16.2	-35.5	
9	Necrotizing enterocolitis of newborn (P77)	10	12	13.9	16.2	16.1	
	All other causes (residual)	189	155	263.2	208.8	-20.6	
All causes		**596**	**550**	**829.8**	**741.0**	**-10.7**	
	WHITE						
1	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	30	40	69.1	89.6	29.6	
2	Disorders related to short gestation and low birth weight, not elsewhere classified (P07)	37	28	85.3	62.7	-26.4	
3	Sudden infant death syndrome (R95)	24	24	55.3	53.8	-2.8	
4	Respiratory distress of newborn (P22)	10	16	23.0	35.9	55.6	
5	Newborn affected by complications of placenta, cord and membranes (P02)	6	13	13.8	29.1	110.7	
6	Newborn affected by maternal complications of pregnancy (P01)	7	11	16.1	24.6	52.8	
6	Intrauterine hypoxia and birth asphyxia (P20-P21)	7	10	16.1	22.4	38.9	
8	Diseases of the circulatory system (I00-I99)	6	9	13.8	20.2	45.8	
8	Bacterial sepsis of newborn (P36)	11	8	25.4	17.9	-29.3	
10	Necrotizing enterocolitis of newborn (P77)	2	1	4.6	2.2	-51.4	
	All other causes (residual)	83	51	191.3	114.3	-40.3	
All causes		**223**	**211**	**513.9**	**472.8**	**-8.0**	
	BLACK						
1	Disorders related to short gestation and low birth weight, not elsewhere classified (P07)	77	70	323.2	285.6	-11.6	
2	Newborn affected by maternal complications of pregnancy (P01)	19	33	79.8	134.6	68.8	
3	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	44	32	184.7	130.6	-29.3	
4	Sudden infant death syndrome (R95)	32	25	134.3	102.0	-24.1	
5	Respiratory distress of newborn (P22)	16	15	67.2	61.2	-8.9	
5	Bacterial sepsis of newborn (P36)	25	15	104.9	61.2	-41.7	
6	Newborn affected by complications of placenta, cord and membranes (P02)	14	14	58.8	57.1	-2.8	
7	Necrotizing enterocolitis of newborn (P77)	8	10	33.6	40.8	21.5	
8	Intrauterine hypoxia and birth asphyxia (P20-P21)	5	6	21.0	24.5	16.6	
9	Diseases of the circulatory system (I00-I99)	12	3	50.4	12.2	-75.7	***
	All other causes (residual)	97	99	407.2	403.9	-0.8	
All causes		**349**	**322**	**1465.0**	**1313.8**	**-10.3**	

*Per 100,000 live births.

**Percent change is based on the exact rates and not the rounded rates presented here.

***Rates in 1999 and 2000 are significantly different ($p<.05$).

TABLE 5. AVERAGE INFANT MORTALITY RATE BY FIVE YEAR INTERVAL AND AND PERCENT CHANGE IN RATES BETWEEN INTERVALS BY CAUSE OF DEATH, MARYLAND, 1991-1995 AND 1996-2000.

Cause of death with 10th revision international list number	*Average infant mortality rate** 1991-1995	1996-2000	*Percent change*	
Disorders related to short gestation and low birth weight, not elsewhere classified (P07)	188.8	185.7	-1.7	
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	141.3	114.0	-19.3	**
Sudden infant death syndrome (R95)	108.7	85.0	-21.7	**
Newborn affected by maternal complications of pregnancy (P01)	37.1	53.2	43.6	**
Respiratory distress of newborn (P22)	60.7	49.6	-18.3	**
Newborn affected by complications of placenta, cord and membranes (P02)	31.7	40.7	28.7	**
Bacterial sepsis of newborn (P36)	23.8	27.0	13.5	
Intrauterine hypoxia and birth asphyxia (P20-P21)	22.6	20.6	-9.1	
Diseases of the circulatory system (I00-I99)	19.2	17.6	-8.0	
Necrotizing enterocolitis of newborn (P77)	17.2	13.6	-20.9	

*Per 100,000 live born infants in specified group.

**Rates for 1991-1995 and 1996-2000 differ significantly ($p<.05$).

TABLE 6. INFANT DEATHS AND INFANT MORTALITY RATES BY RACE, REGION AND POLITICAL SUBDIVISION, MARYLAND, 1999 AND 2000.

Region and political subdivision	ALL RACES					WHITE					BLACK				
	Number of infant deaths		*Infant mortality rate**		Percent change**	*Number of infant deaths*		*Infant mortality rate**		Percent change**	*Number of infant deaths*		*Infant mortality rate**		Percent change**
	1999	2000	1999	2000	1999-00	1999	2000	1999	2000	1999-00	1999	2000	1999	2000	1999-00
Maryland	**596**	**550**	**8.3**	**7.4**	**-10.7**	**223**	**211**	**5.1**	**4.7**	**-7.7**	**349**	**322**	**14.7**	**13.1**	**-10.3**
Northwest Area	**28**	**23**	**5.3**	**4.1**	**-22.4**	**23**	**19**	**4.7**	**3.7**	**-21.5**	**3**	**4**	**10.4**	**11.8**	**13.6**
Garrett	3	2	8.5	6.0	-28.9	3	2	8.5	6.0	-28.9	0	0	-	-	-
Allegany	4	4	5.5	5.0	-8.3	4	4	5.7	5.2	-8.2	0	0	0.0	0.0	-
Washington	6	9	3.6	5.6	54.2	6	7	3.9	4.7	20.3	0	2	0.0	18.2	-
Frederick	15	8	5.8	2.8	-52.4	10	6	4.3	2.3	-46.1	3	2	17.9	9.6	-46.2
Baltimore Metro Area	**293**	**266**	**8.7**	**7.8**	**-11.1**	**110**	**101**	**5.4**	**4.8**	**-10.7**	**176**	**157**	**15.3**	**13.6**	**-11.1**
Baltimore City	131	113	13.5	11.7	-12.9	19	16	8.2	6.7	-18.0	111	95	15.6	13.5	-13.2
Baltimore County	68	60	7.6	6.4	-15.5	31	25	5.1	4.0	-21.7	34	34	13.7	13.0	-5.2
Anne Arundel	47	43	7.1	6.3	-10.3	30	27	5.6	4.9	-12.2	16	13	15.5	12.8	-17.6
Carroll	7	7	3.8	3.7	-3.6	6	7	3.4	3.8	12.3	1	0	29.4	0.0	-100.0
Howard	18	27	5.3	7.6	42.0	13	14	5.2	5.3	3.1	3	11	6.0	21.4	258.1 ***
Harford	22	16	7.5	5.4	-28.0	11	12	4.4	4.7	8.4	11	4	33.5	11.8	-64.9
National Capital Area	**209**	**178**	**8.6**	**7.0**	**-18.9** ***	**53**	**48**	**4.6**	**4.1**	**-10.7**	**143**	**123**	**14.0**	**11.4**	**-18.3**
Montgomery	86	57	7.0	4.4	-37.2 ***	33	27	4.0	3.3	-18.9	41	25	17.4	9.7	-43.9 ***
Prince George's	123	121	10.3	9.7	-5.8	20	21	6.2	6.4	2.4	102	98	12.9	11.9	-7.9
Southern Area	**24**	**33**	**6.1**	**8.3**	**35.7**	**15**	**19**	**4.9**	**6.3**	**27.5**	**9**	**14**	**11.5**	**16.5**	**43.8**
Calvert	6	5	6.3	4.9	-22.3	3	5	3.6	5.7	57.9	3	0	27.0	0.0	-100.0
Charles	11	16	6.6	9.2	39.5	8	8	7.2	7.1	-1.1	3	8	6.0	14.8	147.0
Saint Mary's	7	12	5.4	9.9	83.8	4	6	3.7	5.9	61.5	3	6	17.3	33.5	93.3
Eastern Shore Area	**42**	**50**	**8.8**	**10.2**	**16.2**	**22**	**24**	**6.0**	**6.4**	**6.0**	**18**	**24**	**17.8**	**24.0**	**34.3**
Cecil	13	10	11.1	8.8	-21.0	11	8	10.0	7.4	-25.9	2	2	39.2	44.4	13.3
Kent	1	1	4.7	4.9	3.9	1	1	6.3	6.1	-3.0	0	0	0.0	0.0	-
Queen Anne's	3	2	6.3	4.0	-36.4	1	1	2.3	2.2	-4.4	1	1	24.4	27.0	10.8
Caroline	8	9	22.0	22.1	0.3	4	3	13.8	9.0	-34.7	3	5	46.9	73.5	56.9
Talbot	0	3	0.0	8.1	-	0	1	0.0	3.5	-	0	2	0.0	28.2	-
Dorchester	2	3	6.4	9.1	43.6	1	1	5.3	5.0	-5.5	1	2	8.7	17.1	96.6
Wicomico	12	16	10.7	13.6	27.9	3	6	4.3	8.4	96.1	9	9	22.6	22.1	-2.2
Somerset	1	2	4.0	7.3	85.3	0	1	0.0	6.3	-	1	1	9.4	9.0	-4.5
Worcester	2	4	3.8	8.1	113.3	1	2	2.7	5.3	98.4	1	2	7.5	18.3	144.0

*Per 1,000 live births

**Percent change is based on the exact rates and not the rounded rates presented here

***Rates for 1999 and 2000 differ significantly ($p<.05$)

TABLE 7. NUMBER OF INFANT DEATHS, AVERAGE INFANT MORTALITY RATE BY FIVE YEAR INTERVAL AND PERCENT CHANGE IN RATES BETWEEN INTERVALS BY REGION AND POLITICAL SUBDIVISION, MARYLAND, 1991-1995 AND 1996-2000.

Region and political subdivision	*Number of infant deaths*		*Average infant mortality rate**		*Percent change***	
	1991-1995	1996-2000	1991-1995	1996-2000		
Maryland	**3505**	**2972**	**9.3**	**8.3**	**-10.8**	***
Northwest Area	**203**	**137**	**7.5**	**5.1**	**-32.9**	***
Garrett	14	13	7.2	7.4	2.9	
Allegany	42	17	9.9	4.5	-54.9	***
Washington	66	40	8.3	5.0	-39.3	***
Frederick	81	67	6.4	5.0	-22.1	
Baltimore Metro Area	**1616**	**1414**	**8.9**	**8.4**	**-5.3**	
Baltimore City	833	607	13.6	12.6	-6.9	
Baltimore County	355	349	7.5	7.7	1.9	
Anne Arundel	223	218	6.9	6.6	-4.1	
Carroll	50	53	5.3	5.6	6.9	
Howard	62	92	3.7	5.4	43.7	***
Harford	93	95	6.3	6.4	1.9	
National Capital Area	**1323**	**1068**	**10.5**	**8.7**	**-16.4**	***
Montgomery	455	380	7.4	6.2	-16.1	***
Prince George's	868	688	13.4	11.3	-15.5	***
Southern Area	**151**	**140**	**7.9**	**7.3**	**-8.1**	
Calvert	25	26	5.7	5.5	-3.3	
Charles	62	64	7.6	7.6	0.6	
St. Mary's	64	50	9.9	8.2	-17.1	
Eastern Shore Area	**212**	**213**	**8.8**	**9.1**	**3.6**	
Cecil	44	48	7.8	8.6	10.7	
Kent	5	7	4.5	7.1	59.6	
Queen Anne's	17	20	7.9	8.5	7.6	
Caroline	22	31	11.3	16.7	48.2	
Talbot	18	9	9.7	5.3	-44.9	
Dorchester	15	14	8.1	8.5	5.5	
Wicomico	59	50	10.4	9.1	-12.8	
Somerset	9	11	6.9	8.7	26.9	
Worcester	23	23	9.3	9.3	0.6	

*Per 1000 live births.

**Percent change is based on the exact rates and not the rounded rates presented here.

***Rates for 1991-1995 and 1996-2000 differ significantly ($p<.05$).

TABLE 8. NEONATAL AND POSTNEONATAL DEATHS AND MORTALITY RATES BY RACE, REGION AND POLITICAL SUBDIVISION, MARYLAND, 2000.

Region and political subdivision	Neonatal deaths*						Postneonatal deaths***					
	Number			*Rates***			*Number*			*Rates***		
	All races	White	Black	All races	White	Black	All races	White	Black	All races	White	Black
Maryland	**407**	**156**	**240**	**5.5**	**3.5**	**9.8**	**143**	**55**	**82**	**1.9**	**1.2**	**3.3**
Northwest Area	**15**	**12**	**3**	**2.7**	**2.3**	**8.9**	**8**	**7**	**1**	**1.4**	**1.4**	**3.0**
Garrett	2	2	0	6.0	6.0	0.0	0	0	0	0.0	0.0	0.0
Allegany	2	2	0	2.5	2.6	0.0	2	2	0	2.5	2.6	0.0
Washington	5	3	2	3.1	2.0	18.2	4	4	0	2.5	2.7	0.0
Frederick	6	5	1	2.1	1.9	4.8	2	1	1	0.7	0.4	4.8
Baltimore Metro Area	**190**	**76**	**109**	**5.5**	**3.6**	**9.4**	**76**	**25**	**48**	**2.2**	**1.2**	**4.2**
Baltimore City	80	13	66	8.3	5.4	9.4	33	3	29	3.4	1.3	4.1
Baltimore County	42	19	22	4.5	3.0	8.4	18	6	12	1.9	1.0	4.6
Anne Arundel	32	21	8	4.7	3.8	7.9	11	6	5	1.6	1.1	4.9
Carroll	6	6	0	3.2	3.3	0.0	1	1	0	0.5	0.5	0.0
Howard	22	11	11	6.2	4.2	21.4	5	3	0	1.4	1.1	0.0
Harford	8	6	2	2.7	2.4	5.9	8	6	2	2.7	2.4	5.9
National Capital Area	**141**	**38**	**98**	**5.5**	**3.3**	**9.1**	**37**	**10**	**25**	**1.5**	**0.9**	**2.3**
Montgomery	48	22	22	3.7	2.7	8.6	9	5	3	0.7	0.6	1.2
Prince George's	93	16	76	7.5	4.9	9.3	28	5	22	2.3	1.5	2.7
Southern Area	**24**	**14**	**10**	**6.0**	**4.6**	**11.8**	**9**	**5**	**4**	**2.3**	**1.7**	**4.7**
Calvert	3	3	0	2.9	3.4	0.0	2	2	0	2.0	2.3	0.0
Charles	9	5	4	5.2	4.5	7.4	7	3	4	4.0	2.7	7.4
Saint Mary's	12	6	6	9.9	5.9	33.5	0	0	0	0.0	0.0	0.0
Eastern Shore Area	**37**	**16**	**20**	**7.6**	**4.3**	**20.0**	**13**	**8**	**4**	**2.7**	**2.1**	**4.0**
Cecil	5	4	1	4.4	3.7	22.2	5	4	1	4.4	3.7	22.2
Kent	1	1	0	4.9	6.1	0.0	0	0	0	0.0	0.0	0.0
Queen Anne's	2	1	1	4.0	2.2	27.0	0	0	0	0.0	0.0	0.0
Caroline	7	2	4	17.2	6.0	58.8	2	1	1	4.9	3.0	14.7
Talbot	3	1	2	8.1	3.5	28.2	0	0	0	0.0	0.0	0.0
Dorchester	2	1	1	6.1	5.0	8.5	1	0	1	3.0	0.0	8.5
Wicomico	13	4	9	11.1	5.6	22.1	3	2	0	2.6	2.8	0.0
Somerset	1	0	1	3.7	0.0	9.0	1	1	0	3.7	6.3	0.0
Worcester	3	2	1	6.0	5.3	9.2	1	0	1	2.0	0.0	9.2

*Deaths to infants under 28 days of age

**Per 1,000 live births

***Deaths to infants from 28 days through 11 months of age